

The Coconut Rhinoceros Beetle: A New Threat to Hawai'i's Palm Trees



USDA APHIS & HDOA

Modified from a Guam presentation by Dr. Aubrey Moore

Coconut Rhinoceros Beetle (CRB)



- Adult rhinoceros beetles are very large, dark brown, with a body length of about two inches.
- Both male and female adults have a single horn; the females slightly smaller.



Coconut Rhinoceros Beetle

Aubrey Moore /UOG Photos

- Have 4 life stages: eggs, larvae, pupae, and adults.
- The eggs are laid and develop within dead or rotting coconut logs or trimmings, mulch, or compost
- Adults emerge in about four months
- Adults are very active and night and fly
- Larvae develop within the mulch or rotting material, and are white, C-shaped grubs which grow to about 3.5 inches long



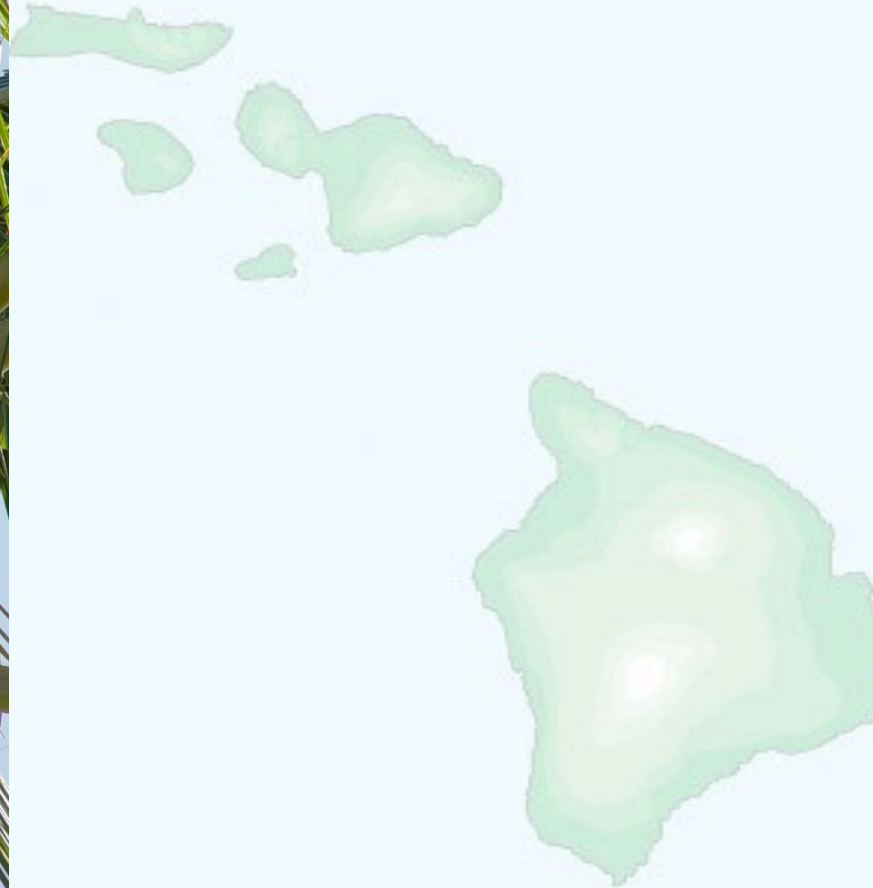


- Adult CRB burrow into crowns of coconut palms to feed on sap. Bore holes may be visible on the fronds.
- CRB do not stay in trees; they spend a few days, then leave



Carol Russell /USDA APHIS Photo

Can you spot the damage?





Can you spot the damage?





- V-shaped cuts in fronds from adult CRB feeding (this is the outgrowth of damage within the crown a month or more prior)



Can you spot the damage?

Note that the damage is on one of the newer (inner) fronds. This represents damage by CRB a month or more prior.



Can you spot the damage?



Carol Russell /USDA APHIS Photo

Can you spot the damage?



Can you spot the damage?



Oriental flower beetle—these are NOT Coconut Rhinoceros Beetles



- Public reports of CRB usually end up being the Oriental Flower Beetle (*Proteatia orientalis*).
- Oriental Flower Beetles are smaller, about an inch long, and have mottled white patches on their backs. They have been present in Hawai'i since at least 2002 and are widespread on Oahu, and are present on Hawai'i Island.

How to tell the difference between larval stages of Oriental Flower Beetle and CRB

**Oriental Flower Beetle
larvae have a line**



CRB larvae have no line

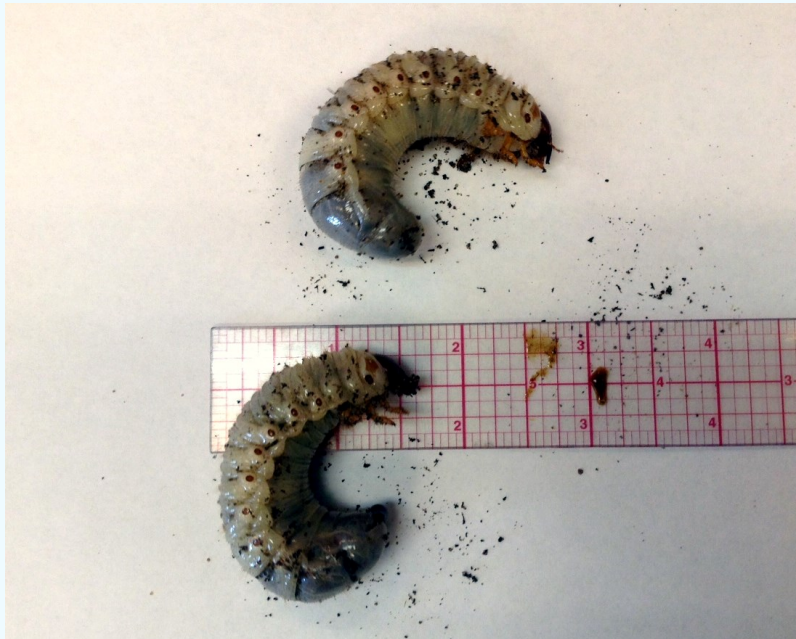


CRB larvae and Oriental Flower Beetle larvae look similar, but:

- Oriental Flower Beetle larvae are more solid feeling; CRB are somewhat squishy
- Oriental Flower Beetle larvae tend to crawl on their back, CRB tend to crawl on their sides
- As seen above, the Oriental Flower Beetle larvae has a line on its ventral (under) side, while CRB do not

Coconut Rhinoceros Beetle

- Very dark brown or black, solid color, no mottling
- Nearly two inches long
- Prominent horn on adult males and females



Situation Update

- In December, a single adult was found in a bucket trap at Joint Base Pearl Harbor
- It was confirmed to be a coconut rhinoceros beetle on January 3
- Surveys and trapping are underway with a priority focus on all coconut trees and logs, compost, greenwaste, and mulch piles within a two mile radius of all detected adult and larval sites
- Additional surveys will be needed for all sites where compost, greenwaste, and coconut logs have been moved
- All sightings or sign of beetle damage (or information on greenwaste in the Airport/Joint Base/Salt Lake/Sand Island) should be reported to **643-PEST (643-7378)**
- For more information about the beetle, please visit:
http://caps.ceris.purdue.edu/webfm_send/2206

State Pest Hotline

All sightings of coconut rhinoceros beetles or sign of beetle damage (hole in the base of palm frond or crown of coconut tree; or v-shaped cuts in fronds) should be reported to **643-PEST (643-7378)**

